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Teaching and Learning – what really matters?

Research tells us that most of what we do in schools contributes to the achievement

outcomes of students. However the important thing for us as educators and parents is

to understand which factors have the most positive influence, so that we can modify

what we do to ensure that all students achieve optimal success at school and beyond.

In this article we want to share with you some insights from a number of writers and

researchers who have given considerable thought to this issue and can provide us with

new perspectives.

‘Future Proofing’ Education

A recent address by Professor Martin Westwell (2011), of Flinders University, spoke

of the need for “future proofing” our children. He discussed the need to think beyond

measurements of literacy and numeracy performance when estimating children’s

success in education. Particularly in our current rapidly changing times, we need to

develop an education system that also examines the key ingredients that promote

effective life-long learning. Westwell reminds us of the importance of the child’s ability

to ‘stop and think’ or inhibit impulses. As teachers we need to encourage children to

respond to a situation with original thought rather than as a reaction out of habit.

Another cognitive foundation for effective learning is the ability to think with flexibility.

Children should be encouraged to see one thing in relation to others and ‘think outside

the square’ so that new knowledge can be connected to what is already known, and also

applied to new situations.

Westwell also tells us, that how children view themselves as learners, is a major

influence on their learning outcomes. Students who are taught in a climate of

performance-based judgment may have a restricted view of themselves, as “this is how

smart I am”. A similar viewpoint may develop from family or community expectation,

placing a sometimes unspoken limit on their expected progress in school and beyond.

For example, “Hardly anyone from my suburb goes to University.” Or “My Dad was no

good at school either.” Professor Westwell examined different students’ approach to

learning new tasks. Effective learners, when faced with unfamiliar or unknown tasks,

saw themselves as learners and embarked on strategies to find out and respond to the

challenge, whereas those students with a fixed attitude about how well or poorly they

could ‘perform’, withdrew from the task, seemingly defeated before they began.

Westwell went on to elaborate about the differing educational outcomes for these groups

of students. There are significant implications for us as teachers and for the ‘education

system’ as a whole to address these issues.

Visible Learning

Professor John Hattie, a New Zealand educational researcher, and currently Director

of the Melbourne Education Research Institute, has for many years examined the

influences on children’s education. After 15 years of research, Hattie published his

findings in the book “Visible Learning” (2008), which brings together the results of Love and Reilly Newsletter No. 38 October 2011 www.loveandreilly.com.au

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50,000 previous studies, involving over 200 million students and ranks 138 aspects of

schooling that influence educational outcomes. Hattie’s work highlights the power of

teachers, in creating the learning climate of the classroom that they establish, through

their trust of the students and the feedback they provide for them. Surprisingly some

factors, previously regarded as significant by others, such as class size or repeating a

grade, were found to have relatively little influence on learning outcomes.

Hattie’s meta-analysis of the educational research studies revealed the factors that have

the most positive influence on student outcomes and he summarised the common

themes in terms of ‘visible’ learning. Visible teaching and visible learning will occur when

teachers SEE learning through the eyes of their students (what is happening, what

students know, what knowledge or skills are needed for the task, how they can

challenge the students and what feedback is needed) and when students SEE teaching

as the key to their ongoing success and begin to take responsibility for their own

learning.

In an interview in 2008 (Australian Government Summer School for Teachers of

Mathematics) Hattie emphasized that effective teaching requires deliberate intervention

to ensure that cognitive changes occur in the students. He encouraged teachers to see

themselves as activators rather than facilitators, saying, “Teaching is a very deliberate

intrusive kind of action.” Hattie challenges teachers to question their style of teaching

and to monitor its effectiveness. He also appeals to teachers to talk with each other

about their students and the visible teaching and learning taking place in their

classrooms. Teachers should be constantly doing their own evaluations asking, ‘What do

the students know now? How can I challenge them? What do they know later?’ It is a

waste of time to teach things that the students already know.

“Watering Up” the Curriculum

Ed Ellis is Professor of Special Education at the University of Alabama. He has

researched and written extensively about the need to cater for all students in the

classroom, including those who struggle. It is in fact those struggling students who are

even more in need of the very best teaching attitudes, strategies and techniques that

allow them to become successful learners. Ellis talks of the need to ‘water up’ the

curriculum in order to help struggling adolescents rather than making classroom and

curriculum accommodations that diminish opportunities for students to learn. Ellis

describes both knowledge goals and affective goals in teaching.

For example: Teachers need to promote students’ deeper understanding of a topic or

concept rather than superficial facts and encourage them to make links to real world

situations (knowledge goals). Students should actively participate in learning tasks, be

confident to take risks, and to reflect on what and how they are learning (affective

goals). Teachers should foster the development of cognitive skills in their students as

they teach the content of the curriculum, so that their students can learn how to “be

smart”. Ellis suggests explicit teaching of ‘habits of the mind’ such as resisting

impulsiveness or persisting in tough times, as well as specific learning strategies such as

that employed for taking a written test. In reality, knowledge and affective goals are Love and Reilly Newsletter No. 38 October 2011 www.loveandreilly.com.au

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“integrative and reciprocally influence each other” (Ellis 2002).

Teachers and Students

We can summarize some of what these three researchers have discussed.

Teachers need to

• believe that every child can learn.

• avoid categorizing children, thereby placing limits on their educational potential.

• have clear learning intentions and set appropriately challenging goals.

• know and present the core ideas of the topic.

• prioritize what to teach, balancing the deep and constructed ‘big picture’ learning,

with the more superficial learning of facts.

• set meaningful, interesting and purposeful tasks.

• create a learning environment that accepts and even encourages errors.

• give feedback that has specific reference to the task, the process and the students’

efforts and self regulation – not just that the work presented was good or not.

• know their students and their progress and use questions strategically to further

challenge and teach them.

• demonstrate learning strategies - modeling both the action and underlying thinking

• scaffold the task or thinking strategy with the students. “I do it, We all do it, You

all do it (group), You do it (individual).” (see Newsletter 35. The Teacher’s

Toolbag)

• give more opportunities for students to elaborate information they learn. In other

words, re-work or translate it in some way so that what is new can be connected to

what is already known and understood.

• foster a classroom atmosphere based on acceptance, respect and the right to

learn.

• allow time for students to respond and contribute and allow multiple contributors Love and Reilly Newsletter No. 38 October 2011 www.loveandreilly.com.au

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In turn, we want our students to be

• motivated and positive, with a healthy self esteem.

• more concerned with a love of learning than the performance based assessment of

how much they know.

• aware of their knowledge and skills or lack of them (their strengths and

weaknesses).

• able to use ‘self talk’ and ‘self questioning’ to guide their thinking and learning

• self regulating. Students’ learning is guided by their ability to think about thinking

and reflect on what and how they are learning (metacognition).

• strategic – they plan their action, monitor their efforts and evaluate their progress

in reaching a goal.

• ‘self teachers’. Successful learning reinforces learning and motivates students to

learn more, so they become their own ‘teachers’. This allows them to be selfreliant.

Some tools to assist teaching and learning

• Encourage students to elaborate knowledge and understandings in a variety of

ways. For example, summarizing, posing questions, drawing diagrams,

prioritizing, comparing and contrasting.

• Use Graphic organizers to show the relationships between ideas and to clarify

knowledge. For example KWL – what I Know, what I Want to know, what I have

Learned.

• Make students aware of the main ways information is presented - list, hierarchy,

compare/contrast.

• Model and encourage students to use ‘Think A loud’ technique as they listen to or

read information.

• Provide opportunities for students to clarify and organize their ideas by talking

before they write.

• Ensure that students have the words to describe the structure of the language. For

example words, sounds, syllables, short vowels, sentence (metalinguistics).

• Heighten students’ awareness of the purpose, organization and typical language

forms used in different texts – both spoken and written. For example in giving an

instruction, or telling a story.Love and Reilly Newsletter No. 38 October 2011 www.loveandreilly.com.au

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• Discuss the specific language markers that cue us as to the type of genre e.g. the

words ‘consequently’, and ‘on the other hand’ may suggest an argument.

• Highlight cognitive verbs such as think, know, wonder, decide, remember, and

encourage students to learn to recognize and use them in spoken and written

language.

• Teach the key vocabulary words related to topics, that are essential to the

understanding of the important concepts of that topic.

• Provide opportunities for students to practise using ‘linguistic frames’ to express

information and knowledge.

To make a … you need the following ingredients.

The first step is to …

I agree with people who say … because …

Both the …. and the …. are … (classification).

There are three main differences between a snake and a lizard …

An example of a resource highlighting such linguistic frames is Language Spinners (Love

and Reilly 2004). Teachers can use Language Spinners to stimulate students to explore

and express their opinions on a book, characters or topics of their choice. This flexible

resource with interchangeable discs provides a framework to support students in stating

their knowledge, reflecting on a topic or giving their opinion. See ways to use this

resource at www.loveandreilly.com.au

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